Appl. No. 10/801,078
Amdt. dated June 7, 2010
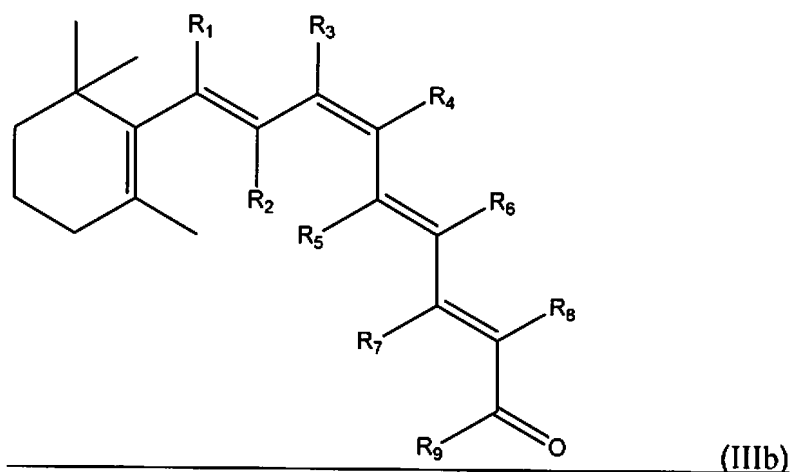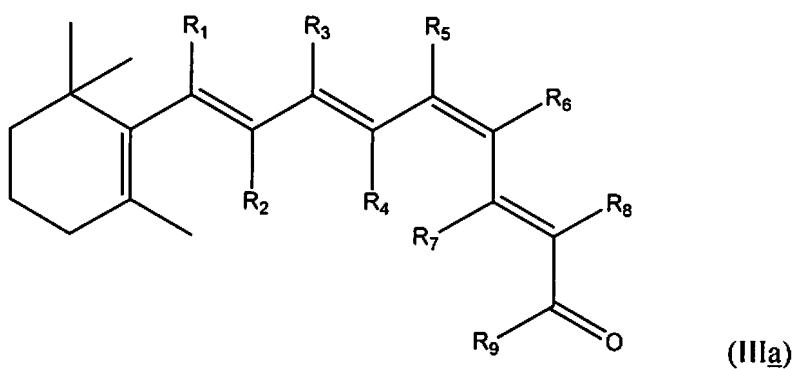2nd Supplemental Reply to Action of November 15, 2009

PATENT

Amendments to the Specification:

Please replace paragraph [0031] on pages 8-9 of the specification with the following amended paragraph:

[0031]   The synthetic retinoid also can be a derivative of an 11-*cis*-retinal or 9-*cis*-retinal that has a substituted polyene chain of the following formulas IIIa and IIIb:

(IIIa)

(IIIb)

Each of R1 to R9 can be independently selected from hydrogen, alkyl, branched alkyl, cyclo-alkyl, halogen, a ~~heteratom~~ heteroatom, hydroxyl, ~~hydroalkyl~~ hydroxyalkyl, amine, amide, or the like. Suitable alkyls include, for example, methyl, ethyl, propyl, substituted alkyl (*e.g.*, alkane with hydroxyl, hydroalkyl, amine, amide) or the like. Suitable branched alkyl can be, for

example, isopropyl, isobutyl, substituted branched alkyl, or the like. Suitable cyclo-alkyls can include, for example, cyclohexane, cycloheptane, and other cyclic alkanes as well as substituted cyclic alkanes such as substituted cyclohexane or substituted cycloheptane. Suitable halogens include, for example, bromine, chlorine, fluorine, or the like. Suitable heteroatoms include, for example, sulfur, silicon, and fluoro- or bromo-substitutions. Suitable substituted alkyls, substituted branch alkyls and substituted cyclo-alkyls include, for example, alkyls, branched alkyls and cyclo-alkyls substituted with oxygen, hydroxyl, nitrogen, amide, amine, halogen, a heteroatom or other groups. In exemplary embodiments, the synthetic retinoid is 9-ethyl-11-*cis*-retinal, 7-methyl-11-*cis*-retinal, 13-desmethyl-11-*cis*-retinal, 11-*cis*-10-F-retinal, 11-*cis*-10-Cl-retinal, 11-*cis*-10-methyl-retinal, 11-*cis*-10-ethyl-retinal, 9-*cis*-10-F-retinal, 9-*cis*-10-Cl-retinal, 9-*cis*-10-methyl-retinal, 9-*cis*-10-ethyl-retinal, 11-*cis*-12-F-retinal, 11-*cis*-12-Cl-retinal, 11-*cis*-12-methyl-retinal, 11-*cis*-10-ethyl-retinal, 9-*cis*-12-F-retinal, 9-*cis*-12-Cl-retinal, 9-*cis*-12-methyl-retinal, 11-*cis*-14-F-retinal, 11-*cis*-14-methyl-retinal, 11-*cis*-14-ethyl-retinal, 9-*cis*-14-F-retinal, 9-*cis*-14-methyl-retinal, 9-*cis*-14-ethyl-retinal, or the like.